

**IDEALIST
SECRET**

IDEA 2968
Copy 4
23 February 1966

MEMORANDUM FOR: Chief, Intelligence Division, OSA

SUBJECT : Sensitive Altimeter

1. In connection with the IDEALIST Configuration Evaluation Board held on 14 February 1966, the following data is submitted:

a. New Equipment

- (1) Air Data Computer (ADC)
- (2) 3 inch Tape Altimeter (IND)
- (3) Temperature Probe (PROBE)

b. Weight

- (1) ADC Approx 12 lbs.
- (2) IND Approx 4 lbs.
- (3) PROBE Approx 0.5 lbs.

c. Operating Range

- (1) Temp: -54 degrees Cent. to +71 degrees Cent.
- (2) Alt: +80,000 ft.
- (3) MTBF: ADC - 3000 hrs. (From C-141 A/C)

IND - No info as yet

PROBE - No info as yet

d. Warranty:

- (1) ADC and IND - 12 mos or 1500 flying hours.

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e. Accuracies - ADC

(1) Pressure Altitude - Plus or minus 20 ft or 0.15%.

(2) Claibrated Indicated Airspeed - Plus or minus 2 kts from 80-250 kts. plus or minus 3 kts over entire range from 50 kts to 400 kts.

(3) Mach Hold - Sensitivity of .0005 Mach (0.1 knot at 70,000 ft).

(4) True Airspeed - Plus or minus 5 kts to 30,000 ft and 2 kts from 10,000 to 80,000 ft.

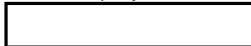
(5) Free Air Temp - Plus or minus 2 degrees Cent.

(6) Rate of Climb - 50 ft/min or 5 percent with 25 ft/min threshold.

f. Accuracies - Indicator (Altitude)

(1) Sensitivity - Plus or minus 5 ft up to 80,000 ft.

(2) Altitude Accuracy - Plus or minus 10 ft up to



g. Budgetary Prices

(1) ADC

Qty

25

40

60

(2) Tape Altimeter

Qty

25

40

60



25X1

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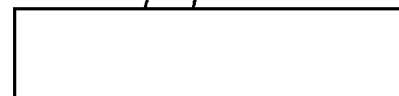
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(3) Temp. Probe

| <u>Qty</u> | <u>Unit Price</u> | <u>Total Price</u> |
|------------|-------------------|--------------------|
| 25 | | |
| 40 | | |
| 60 | | |

25X1

2. Use of the above system would allow the removal of the existing Mach Computer with a 10 fold increase in Delta Mach sensitivity. With minor modification the existing "Cabin-Q-Bay" altimeter could be utilized as a pressure back-up system.



25X1A

Chief, Materiel Division
OSA-DD/S&T

MD/OSA/ [redacted] (23Feb66)

Distribution:

- #1 - C/ID/OSA
- #2 - MD/OSA
- #3 - MD/OSA
- #4 - RB/OSA
- #5 - Chrono

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